

Application No. 09/853,311
Amendment dated August 17, 2005
Reply to Final Office Action of May 18, 2005

Docket No. 1232-4713

REMARKS

Applicant respectfully requests reconsideration of this application in view of the foregoing amendment and following remarks.

Status of the Claims

Claims 1-36 are pending in this application. Claims 1, 13 and 25 are independent. All of the pending claims stand rejected.

By this amendment, claims 6, 7, 9, 18, 19, 21, 30, 31 and 33 are cancelled without prejudice or disclaimer. Claims 1-5, 10-17, 20, 22-29 and 34-36 are amended. No new matter has been added by this amendment.

Rejection under 35 U.S.C. §103(a)

Claims 1-36 have been rejected under 35 U.S.C. §103(a) as being anticipated by U.S. Patent No. 6,697,106 to Saito ("Saito") in view of U.S. Patent No. 6,130,420 to Tanaka et al. ("Tanaka").

The Examiner indicates that Saito discloses each and every element of independent claims 1, 13 and 25 except for the last element of the claims, i.e., "wherein said operating frequency setting device sets the operating frequency of said image sensing apparatus based on whether said display unit is turned on or not." The Examiner then cites Tanaka as disclosing this missing element in Saito. In particular, the Examiner states that:

Tanaka et al. teach that driving mode "a" is an image monitoring mode for displaying a preview image on the LCD 107 wherein the operating frequency is 'divided' to '1/m' (corresponding to the claimed 'displayed unit is turned on') and driving modes 'b and c' are image adjustment and recording modes wherein images are not displayed on the LCD (see column 8, lines 57-60) and the operating frequency is not 'divided' (see column 8, lines 37-42; corresponding to

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the claimed 'display unit is turned off'). (Emphasis added. Page 5 of the Final Office Action)

Applicant respectfully disagrees with the Examiner's basis for the rejection for at least the reasons as set forth below.

As explained in Applicant's previous amendment filed on November 19, 2004, one of the aspects of the present invention is directed to balancing out the power consumption between the image display device (e.g., LCD) and the processing device (e.g., CPU) in an image sensing apparatus. For example, when the image display device is turned on, the operating frequency is set at a relatively lower frequency until the shutter switch is pressed. When the shutter switch is pressed, the operating frequency is changed to set at a relatively higher frequency. When, however, the image display device is not turned on, the operating frequency may be set at the second frequency from the beginning.

Tanaka discloses an image sensing apparatus which operates under two modes (i.e., "all-pixel read-out mode" and "thinned read-out mode") depending on the number of pixels read from an image sensing device (e.g., CCD). All of the pixels in the CCD are read from the image sensing device in the all-pixel mode while a portion of the pixels are read in the thinned mode. In an operation, Tanaka's image sensing apparatus further identifies three more modes depending on the status of the image taking operation, i.e., a monitoring mode ("a" mode), a driving mode ("b" mode) and a recording mode ("c" mode). In the "a" mode operation, the apparatus reads the CCD with the thinned mode using a reduced frequency. In the "b" mode operation, the apparatus still reads the CCD with the thinned mode but the driving frequency is not reduced, i.e., a normal frequency. In the "c" mode operation, the apparatus reads the CCD

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with the all pixel mode with the normal frequency. See, for example, col. 8, lines 18-60 of Tanaka.

There is nothing in Tanaka, however, including the cited portions by the Examiner that teaches whether the operating frequency of the image sensing device is controlled depending on the ON/OFF states of the image display device (i.e., LCD). It appears that the LCD of the Tanaka's image sensing apparatus is turned ON through the transitions between the "a", "b" and "c" modes. For example, a portion of Tanaka describes that "... the inventive electronic still camera lowers its power dissipation through reductions in the amount of power consumed by the CCD solid state image sensing device 10 without adversely affecting the motions of images displayed on the LCD 107..." (col. 9, lines 26-31 of Tanaka)

As a result, none of the cited references (i.e., Saito and Tanaka) shows or suggests that the operating frequency of the image sensing apparatus is controlled based on whether the image display device is turned on or not, as specifically recited in independent claims 1, 13 and 25 of the present application.

Accordingly, each of claims 1, 13 and 25 is believed neither anticipated by nor rendered obvious in view of the cited references, taken either alone or in combination, for at least the reasons discussed above.

Nonetheless, claims 1-5, 10-17, 20, 22-29 and 34-36 have been amended for further clarification of the present invention. In particular, amended independent claim 1 recites "a sensing device" that senses an operation causing pre-processing for photographic processing, and "a storage device" that stores a flag indicating an ON/OFF setting of the display device. Amended claim 1 further recites that the operating frequency setting device sets the operating

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frequency of the image sensing apparatus based on the flag AND whether the sensing device senses the operation or not. Other independent claims (i.e., claims 13 and 25) are amended in a similar manner to claim 1. Support for the amendment may be found throughout the original specification (e.g., page 17, line 24 through page 19, line 20).

Applicant believes that amended independent claims 1, 13 and 25 further distinguish over Saito and Tanaka because neither of the cited references shows or suggests this aspect of the present invention as featured in the amended claims 1, 13 and 25, i.e., setting operating frequency of an image sensing apparatus based on the flag and whether the sensing device senses the operation or not.

Reconsideration and withdrawal of the rejections of claims 1, 13 and 25 under 35 U.S.C. §103(a) is respectfully requested.

Applicant has not individually addressed the rejections of the dependent claims because Applicant submits that the independent claims from which they respectively depend are in condition for allowance as set forth above. Applicant however reserves the right to address such rejections of the dependent claims should such be necessary.

Applicant believes that the application as amended is in condition for allowance and such action is respectfully requested.

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AUTHORIZATION

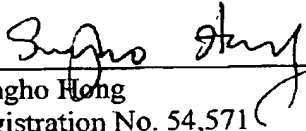
No petitions or additional fees are believed due for this amendment and/or any accompanying submissions. However, to the extent that any additional fees and/or petition is required, including a petition for extension of time, Applicant hereby petitions the Commissioner to grant such petition, and hereby authorizes the Commissioner to charge any additional fees, including any fees which may be required for such petition, or credit any overpayment to Deposit Account No. 13-4500 (Order No. 1232-4713). A DUPLICATE COPY OF THIS SHEET IS ENCLOSED.

An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: August 17, 2005

By: _____


Sungho Hong
Registration No. 54,571

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.
Three World Financial Center
New York, NY 10281-2101
(212) 415-8700 Telephone
(212) 415-8701 Facsimile

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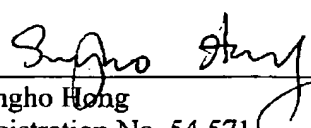
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Three World Financial Center
New York, NY 10281-2101
(212) 415-8700 Telephone
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